A. AMENDMENTS TO SPECIFICATION

Please amend the specification at Page 3, lines 3-10 as indicated below.

Standard equalizers used in digital communication systems, such as adaptive Least Means Squares (LMS) and Recursive Least Squares (RLS) ~~RLS~~ equalizers, are generally inappropriate for DMT systems since they do not adequately shorten the communications channel impulse response and thereby fail to sufficiently eliminate ISI. Some attempts have been made to shorten the overall channel plus equalizer impulse response to be less than the cyclic prefix length. See for example, *A Multicarrier Primer*, by J.M. Cioffi; and *Impulse Response Shortening for Discrete Multitone Transceivers*, by P. Melsa, R. Younce and C. Rohrs, IEEE Transactions on Communications, Vol. 44, No. 12, December 1996.

B. AMENDMENTS TO CLAIMS

Please cancel Claims 4, 13, 22 and 31 and amend the claims as indicated hereinafter.

1. (CURRENTLY AMENDED) A communications receiver comprising:
a time domain equalizer;
a frequency domain equalizer; and
an update mechanism configured to update both the time domain equalizer and the frequency domain equalizer based upon performance data that indicates performance of a communications channel from which the communications receiver receives ~~data.~~ data, wherein updating the time domain equalizer includes determining a relative performance of the time domain equalizer operating with first and second sets of equalizer coefficients.

2. (ORIGINAL) The communications receiver as recited in Claim 1, wherein the update mechanism is further configured to update the time domain equalizer by updating coefficients used by the time domain equalizer.

3. (ORIGINAL) The communications receiver as recited in Claim 1, wherein the update mechanism is further configured to generate the performance data based upon synchronization symbols received by the communications receiver.

4. (CANCELED)

5. (ORIGINAL) The communications receiver as recited in Claim 4, wherein the update mechanism is further configured to determine the relative performance of the time domain equalizer when operating with first and second sets of equalizer coefficients by determining signal to noise ratios of data received by the communications receiver when the time domain equalizer is operating with the first and second sets of equalizer coefficients.

6. (ORIGINAL) The communications receiver as recited in Claim 5, wherein the update mechanism is further configured to update bit allocation among tones based upon the determined signal to noise ratios.

7. (ORIGINAL) The communications receiver as recited in Claim 5, wherein the update mechanism is further configured to perform gain adjustments on tones based upon the determined signal to noise ratios.

8. (ORIGINAL) The communications receiver as recited in Claim 1, wherein the communications receiver is a digital subscriber line communications receiver.

9. (ORIGINAL) The communications receiver as recited in Claim 1, wherein the communications receiver is part of a discrete multitone communications system.

10. (CURRENTLY AMENDED) An update mechanism configured to update both a time domain equalizer and a frequency domain equalizer in a communications receiver based upon performance data that indicates performance of a communications channel from which the communications receiver receives ~~data.~~ data, wherein updating the time

domain equalizer includes determining a relative performance of the time domain equalizer operating with first and second sets of equalizer coefficients.

11. (ORIGINAL) The update mechanism as recited in Claim 10, wherein the update mechanism is further configured to update the time domain equalizer by updating coefficients used by the time domain equalizer.

12. (ORIGINAL) The update mechanism as recited in Claim 10, wherein the update mechanism is further configured to generate the performance data based upon synchronization symbols received by the communications receiver.

13. (CANCELED)

14. (ORIGINAL) The update mechanism as recited in Claim 13, wherein the update mechanism is further configured to determine the relative performance of the time domain equalizer when operating with first and second sets of equalizer coefficients by determining signal to noise ratios of data received by the communications receiver when the time domain equalizer is operating with the first and second sets of equalizer coefficients.

15. (ORIGINAL) The communications receiver as recited in Claim 14, wherein the update mechanism is further configured to update bit allocation among tones based upon the determined signal to noise ratios.

16. (ORIGINAL) The communications receiver as recited in Claim 14, wherein the update mechanism is further configured to perform gain adjustments on tones based upon the determined signal to noise ratios.

17. (ORIGINAL) The update mechanism as recited in Claim 10, wherein the communications receiver is a digital subscriber line communications receiver.

18. (ORIGINAL) The update mechanism as recited in Claim 10, wherein the communications receiver is part of a discrete multitone communications system.

19. (CURRENTLY AMENDED) A method for configuring a communications receiver comprising the step of updating both a time domain equalizer and a frequency domain equalizer contained in the communications receiver based upon performance data that indicates performance of a communications channel from which the communications receiver receives ~~data.~~ data, wherein updating the time domain equalizer includes determining a relative performance of the time domain equalizer operating with first and second sets of equalizer coefficients.

20. (ORIGINAL) The method as recited in Claim 19, wherein updating the time domain equalizer includes updating coefficients used by the time domain equalizer.

21. (ORIGINAL) The method as recited in Claim 19, further comprising generating the performance data based upon synchronization symbols received by the communications receiver.

22. (CANCELED)

23. (ORIGINAL) The method as recited in Claim 22, wherein determining the relative performance of the time domain equalizer when operating with first and second sets of equalizer coefficients includes determining signal to noise ratios of data received by the communications receiver when the time domain equalizer is operating with the first and second sets of equalizer coefficients.

24. (ORIGINAL) The method as recited in Claim 23, further comprising updating bit allocation among tones based upon the determined signal to noise ratios.

25. (ORIGINAL) The method as recited in Claim 23, further comprising performing gain adjustments on tones based upon the determined signal to noise ratios.

26. (ORIGINAL) The method as recited in Claim 19, wherein the communications receiver is a digital subscriber line communications receiver.

27. (ORIGINAL) The method as recited in Claim 19, wherein the communications receiver is part of a discrete multitone communications system.

28. (CURRENTLY AMENDED) A computer-readable medium carrying one or more sequences of one or more instructions for configuring a communications receiver, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to update both a time domain equalizer and a frequency domain equalizer contained in the communications receiver based upon performance data that indicates performance of a communications channel from which the communications receiver receives ~~data.~~ data, wherein updating the time domain equalizer includes determining a relative performance of the time domain equalizer operating with first and second sets of equalizer coefficients.

29. (ORIGINAL) The computer-readable medium as recited in Claim 28, wherein updating the time domain equalizer includes updating coefficients used by the time domain equalizer.

30. (ORIGINAL) The computer-readable medium as recited in Claim 28, further comprising one or more additional sequences of one or more instructions which, when executed by the one or more processors, cause the one or more processors to generate the performance data based upon synchronization symbols received by the communications receiver.

31. (CANCELED)

32. (ORIGINAL) The computer-readable medium as recited in Claim 31, wherein determining the relative performance of the time domain equalizer when operating with first and second sets of equalizer coefficients includes determining signal to noise ratios of data received by the communications receiver when the time domain equalizer is operating with the first and second sets of equalizer coefficients.

33. (ORIGINAL) The computer-readable medium as recited in Claim 32, further comprising one or more additional sequences of one or more instructions which, when executed by the one or more processors, cause the one or more processors to update bit allocation among tones based upon the determined signal to noise ratios.

34. (ORIGINAL) The computer-readable medium as recited in Claim 32, further comprising one or more additional sequences of one or more instructions which, when executed by the one or more processors, cause the one or more processors to perform gain adjustments on tones based upon the determined signal to noise ratios.

35. (ORIGINAL) The computer-readable medium as recited in Claim 28, wherein the communications receiver is a digital subscriber line communications receiver.

36. (ORIGINAL) The computer-readable medium as recited in Claim 28, wherein the communications receiver is part of a discrete multitone communications system.